AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-57. (Canceled)

58. (New) A method for determining the fitness level of an individual, comprising:

subjecting the individual to an exercise session in which the individual performs a plurality of exercise cycles;

electronically monitoring a heart rate of the individual during the exercise session;

recording the heart rate of the individual to an electronic file;

analyzing the electronic file to determine cycle parameters, the cycle parameters comprising:

a base heart rate, the base heart rate being the individual's heart rate prior to the exercise session;

a peak heart rate, the peak heart rate being the maximum heart rate that the individual reaches during the exercise session;

a delta heart rate time, the delta heart rate time being the amount of time that it takes the individual's heart rate to reach the peak heart rate during the exercise session; and,

a recovery time, the recovery time being the amount of time that it takes the individual's heart rate to reach the base heart rate after the exercise session has ended; and,

assigning a value to the fitness level of the individual, the fitness level being a numerical representation of the cycle parameters, said assigning comprising:

weighting at least one of the cycle parameters;

summing the cycle parameters;

performing a quadratic regression analysis on the electronic file to obtain at least one goodness of fit value; and,

diagnosing abnormal physiological conditions by comparing the at least one goodness of fit

parameter with a catalog, the catalog relating the at least one goodness of fit parameter to

the abnormal physiological conditions.

59. (New) The method of claim 58, the comparing further comprising accessing the catalog

through an electronic network, the electronic networking being selected from a group consisting

of a local network, a wireless network, a wired network, a wide area network, the Internet, and

any combination thereof.

60. (New) the method of claim 58, the recording further comprising recording at least one rest

portion selected from a group of a pre-exercise rest portion, an intervening rest portion

corresponding to a period from an end of one of the plurality of exercise cycles to the beginning

of a next exercise cycle, and a post-exercise rest portion.

61. (New) The method of claim 60, the determining further comprising determining a resting

heart rate within the at least one rest portion, and the assigning comprising assigning a value

based on at least one cycle parameter.

62. (New) The method of claim 61, the determining further comprising performing a quadratic

regression analysis on at least one rest portion to obtain a second goodness of fit parameter, the

cycle parameters further comprising the second goodness of fit parameter.

63. (New) The method of claim 62, further comprising diagnosing abnormal physiological

conditions by comparing the second goodness of fit parameter with a catalog, the catalog relating

the second goodness of fit parameter to the abnormal physiological conditions.

64. (New) The method of claim 58, further used for modifying an exercise regimen for said

individual, the exercise regimen having target cycle parameters, said method further comprising:

comparing said cycle parameters to said target cycle parameters; and,

changing the target cycle parameters in response to said comparing.

65. (New) The method of claim 64 further comprising providing the cycle parameters through an

electronic network, the electronic networking being selected from a group consisting of a local

network, a wireless network, a wired network, a wide area network, the Internet, and any

combination thereof.

66. (New) The method of claim 64 further comprising providing the exercise regimen through an electronic network, the electronic networking being selected from a group consisting of a local network, a wireless network, a wired network, a wide area network, the Internet, and any combination thereof.

67. (New) The method of claim 58 further comprising transmitting the heart rate from a monitoring location to a recording location through an electronic network, the electronic networking being selected from a group consisting of a local network, a wireless network, a wired network, a wide area network, the Internet, and any combination thereof.

68. (New) The method of claim 58 further comprising transmitting the electronic file through an electronic network to an analyzing location, the electronic networking being selected from a group consisting of a local network, a wireless network, a wired network, a wide area network, the Internet, and any combination thereof.

69. (New) A system for assessing an individual's physiological condition during an exercise regimen, the regimen comprising at least on exercise session, the exercise session comprising a plurality of exercise cycles, the system comprising:

> an electronic monitor for monitoring a heart rate of the individual during at least one of the exercise sessions;

> a recorder for recording the heart rate to an electronic file;

> an analyzer, the analyzer capable of performing a quadratic regression analysis through at least one portion of the electronic file to obtain at least one goodness of fit value and the analyzer capable of analyzing the electronic file to determine cycle parameters, the cycle parameters comprising:

>> a base heart rate, the base heart rate being the individual's heart rate prior to the exercise session;

>> a peak heart rate, the peak heart rate being the maximum heart rate that the individual reaches during the exercise session;

>> a delta heart rate time, the delta heart rate time being the amount of time that it takes the individual's heart rate to reach the peak heart rate during the exercise session; and,

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a recovery time, the recovery time being the amount of time that it takes the

individual's heart rate to reach the base heart rate after the exercise session has ended;

and,

a catalog, the catalog relating the at least one goodness of fit parameter to abnormal

physiological conditions.

70. (New) The system of claim 69 wherein said analyzer is capable of generating an exercise

regimen comprising:

at least one warm up cycle; and,

at least one critical cycle that has target cycle parameters based upon the cycle parameters.

71. (New) The system of claim 70, the analyzer capable of providing instructions to the

individual, the instructions directing the individual how to perform the exercise regimen.

72. (New) The system of claim 69, the analyzer capable of synchronizing the exercise regimen

with at least one cycle phenomena selected from a group consisting of a lunar cycle and a

circadian rhythm of the individual.

73. (New) The system of claim 69, further comprising a communication link between said

recorder and said analyzer, wherein said communication link comprises an electronic network

selected from a group consisting of a local area network, a wireless network, a wired network, a

wide area network, an Internet connection, and any combination thereof.

74. (New) The system of claim 69, further comprising a user interface selected from a group

consisting of an Internet web page, a display monitor, a computer terminal, an audio device, a

tactile device, or any combination thereof.